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# Combination of first trimester serum afamin levels and three-dimensional placental bed vascularization as a possible screening method to detect women at-risk for adverse pregnancy complications like pre-eclampsia and gestational diabetes mellitus in low-risk pregnancies

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**Conflicts of interest:** Hans Dieplinger is owner and shareholder of Vitaeq Biotechnology GmbH, a spin-off company of the Medical University of Innsbruck, holding several patents related to research described in this article. All other authors have no conflicts of interest to disclose. All authors declare that they participated in contribution made to the study and have approved the final version.

**Keywords:** afamin, placental bed vascularization, pre-eclampsia, first trimester;

## Highlights:

- Correlation of first trimester afamin with placental bed vascularization.
- Afamin improves performance of first trimester screening for pre-eclampsia.
- Afamin provides first trimester screening for gestational diabetes mellitus.
- First trimester afamin is usable for the detection of pregnancy complications.

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